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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,575	04/26/2000	Wolfgang M. Strobel	P48-1229-1	9555

7590

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EXAMINER

TSAI, HENRY

ART UNIT

PAPER NUMBER

2183

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/558,575

Applicant(s)

STROBEL ET AL.

Examiner

Henry W.H. Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/14/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 30 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Heinlein (U.S. Patent No. 4,610,581) herein referred as Heinlein.

Referring to claim 30, Heinlein discloses as claimed a rotary cutting tool comprising: a first cutting portion that is non-tapered (the cutting portion of the Heinlein's cutting tool 21 near the shank 23, see Fig. 2) and defining a first outer diameter (see Fig. 2) and second cutting portion that is non-tapered (the cutting portion of the Heinlein's cutting tool 21 near the front end see Fig. 2) defining a second outer diameter (note the second outer diameter of the Heinlein's cutting tool 21 is the same as the first outer diameter, see Fig. 2) extending from and coaxial (along axis of cutting tool

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21, see Fig. 2) with the first cutting portion; and wherein the second cutting portion (the cutting portion of the Heinlein's cutting tool 21 near the front end see Fig. 2) defines a generally cylindrical, outer peripheral surface (see Fig. 2); each of the first cutting portion (the cutting portion of the Heinlein's cutting tool 21 near the shank 23, see Fig. 2) and second cutting portion (the cutting portion of the Heinlein's cutting tool 21 near the front end see Fig. 2) being defined in part by at least two helical cutting flutes (23a, 23a, see Fig. 2, having cutting edge 24, see also Col. 3, lines 13-19) extending longitudinally (along the axis of cutting tool 21, see Fig. 2)).

As to claim 32, Heinlein also discloses the first cutting portion (the cutting portion of the Heinlein's cutting tool 21 near the shank 23, see Fig. 2) and second cutting portion (the cutting portion of the Heinlein's cutting tool 21 near the front end see Fig. 2) being generally cylindrical.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heinlein in view of Yankovoy et al. (U.S. Patent No. 4,449,865) hereafter referred as Yankovoy et al.. Heinlein discloses the claimed invention except for: including a tapered portion interposed between the first cutting portion and the second cutting portion, and the tapered portion having a diameter that progressively decreases from the first outer diameter to the second outer diameter.

Yankovoy et al. discloses a rotary cutting tool (10 see Fig. 1) comprising a tapered portion (52, see Fig. 1) interposed between the first cutting portion (14, see Fig. 1) and the second cutting portion (12, see Fig. 1), and the tapered portion (52 having cutting edge 54, see Fig. 1) having a diameter that progressively decreases from the first outer diameter to the second outer diameter (see Fig. 2, and see also Col. 5, lines 59-63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Heinlein's

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cutting tool to comprise a tapered portion interposed between the first cutting portion and the second cutting portion, and the tapered portion having a diameter that progressively decreases from the first outer diameter to the second outer diameter, as taught by Yankovoy et al., in order to increase the cutting function of Heinlein's cutting tool for generating a slot having different diameter along the axis thereof.

Further, as shown in re Dailey, 149 USPQ 47 (CCPA 1976), to make changes in form/shape generally does not provide patentable weight to the claimed invention.

Response to Arguments

5. Applicant's arguments mailed 12/05/03 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure wherein Dye'933; Wardell'276; and Lysenko et al'552; also disclose the cutting tool comprising at least two helical cutting flutes similar to limitations as claimed.

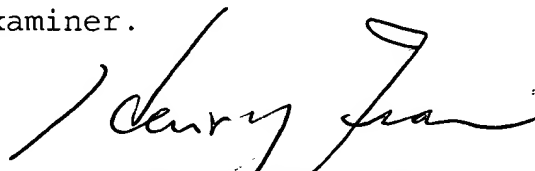
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Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Henry Tsai whose telephone number is (703) 308-7600. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Eddie Chan, can be reached on (703) 305-9712. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 receptionist whose telephone number is (703) 305-3900.

8. In order to reduce pendency and avoid potential delays, Group 2100 is encouraging FAXing of responses to Office actions directly into **the Group at fax number: 703-872-9306.**

This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2100 will be promptly forward to the examiner.


HENRY W. H. TSAI
PRIMARY EXAMINER

March 7, 2004